Amendment to and Listing of the Claims:

1. (Original) A method of generating a differentiated human cell of a selected type, the method comprising maintaining an isolated human KDR^+ stem cell in the presence of a differentiated mammalian cell of the selected type, whereby the stem cell differentiates to become the differentiated human cell of the selected type.

2. (Original) The method of claim 1, wherein the stem cell is maintained in contact with the differentiated mammalian cell.

3. (Original) The method of claim 1, wherein the stem cell is maintained in vitro in the presence of the differentiated mammalian cell.

4. (Amended) The method of claim 1, wherein the stem cell is separated from the differentiated mammalian cell by a porous barrier, the barrier having pores of a size sufficient to allow the passage of small proteins but not the stem cell or the mammalian cell.

5. (Original) The method of claim 1, wherein the stem cell is isolated from a human hematopoietic tissue using a reagent that specifically binds with KDR.

6. (Original) The method of claim 5, wherein tissue is selected from the group consisting of an embryonic tissue, a fetal tissue, and a post-natal tissue.

7. (Original) The method of claim 5, wherein the tissue is an embryonic tissue selected from the group consisting of the aorta-gonad-mesonephros region tissue, yolk sac, and embryonic liver.

8. (Original) The method of claim 5, wherein the tissue is a fetal tissue selected from the group consisting of liver, bone marrow, and peripheral blood.

9. (Original) The method of claim 5, wherein the tissue is a post-natal tissue selected from the group consisting of cord blood, bone marrow, normal peripheral blood, mobilized peripheral blood, a hepatic tissue, and a splenic tissue.

10. (Original) The method of claim 5, wherein the reagent is an antibody.

11. (Original) The method of claim 10, wherein the antibody is selected from the group consisting of KDR1 and KDR2.

12. (Withdrawn) The method of claim 1, wherein the stem cell is isolated using a conjugated vascular endothelial growth factor.

13. (Original) The method of claim 1, wherein the differentiated mammalian cell is a human cell.

14. (Original) The method of claim 1, wherein the differentiated mammalian cell is a cell of ectodermal origin.

15. (Original) The method of claim 1, wherein the differentiated mammalian cell is a cell of mesodermal origin.

16. (Original) The method of claim 1, wherein the differentiated mammalian cell is a cell of endodermal origin.

17. (Original) The method of claim 1, wherein the differentiated mammalian cell is selected from the group consisting of a skeletal muscle cell, a myocardial cell, an epithelial cell, an endothelial cell, a cartilage cell, a retinal cell, a lens cell, a bone cell, a fat cell, a

peripheral nerve cell, a differentiated hematopoietic cell, a marrow stromal cell, a hepatocyte, a splenocyte, a keratinocyte, a fibroblast, a lymphoid cell, and a central nervous system cell.

18. (Withdrawn) A method of repairing a damaged human tissue, the method comprising

i) maintaining an isolated human KDR^+ stem cell in the presence of a differentiated mammalian cell of a tissue of the same type as the damaged tissue, whereby the stem cell differentiates to become an altered cell selected from the group consisting of a tissue-exposed stem cell, a precursor of a cell of the same type as the damaged tissue, and a terminally differentiated cell of the same type as the damaged tissue; and

ii) providing the altered cell to the damaged tissue, thereby repairing the tissue.

19. to 31. (CANCELED)

32. (Withdrawn) A method of rejuvenating an age-damaged human tissue, the method comprising

i) maintaining an isolated human KDR^+ stem cell in the presence of a differentiated mammalian cell of a tissue of the same type as the damaged tissue, whereby the stem cell differentiates to become an altered cell selected from the group consisting of a tissue-exposed stem cell, a precursor of a cell of the same type as the damaged tissue, and a terminally differentiated cell of the same type as the damaged tissue; and

ii) providing the altered cell to the age-damaged tissue, thereby rejuvenating the tissue.

33. to 45. (CANCELED)

46. (Original) A method of generating a differentiated human cell of a selected type, the method comprising maintaining an isolated human KDR^+ stem cell in a medium conditioned to reflect the presence of differentiated mammalian cells of the selected type in the medium, whereby the stem cell differentiates to become the differentiated human cell of the selected type.

47. to 49. (CANCELED)

50. (Withdrawn) A method of repairing a damaged human tissue, the method comprising

i) maintaining an isolated human KDR^+ stem cell in a medium conditioned to reflect the presence of differentiated mammalian cells of the same type as the damaged tissue, whereby the stem cell differentiates to become an altered cell selected from the group consisting of a tissue-exposed stem cell, a precursor of a cell of the same type as the damaged tissue, and a terminally differentiated cell of the same type as the damaged tissue; and

ii) providing the altered cell to the damaged tissue, thereby repairing the tissue.

51. to 53. (CANCELED)

54. (Original) A method of rejuvenating an age-damaged human tissue, the method comprising

i) maintaining an isolated human KDR^+ stem cell in a medium conditioned to reflect the presence of differentiated mammalian cells of the same type as the damaged tissue, whereby the stem cell differentiates to become an altered cell selected from the group consisting of a tissue-exposed stem cell, a precursor of a cell of the same type as the damaged tissue, and a terminally differentiated cell of the same type as the damaged tissue; and

ii) providing the altered cell to the age-damaged tissue, thereby rejuvenating the tissue.

55. to 89. (CANCELED)